Title: HIGH VOLTAGE RESET METHOD FOR INCREASING
THE DYNAMIC RANGE OF A CMOS IMAGE SENSOR
Inventors: Willem J. Kindt, Christina P. Phan, Shivani Gupta
Docket No: M&G 50019.76US01

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Fig. 1
PRIOR ART

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Inventors: Willem J. Kindt, Christina P. Phan, Shivani Gupta
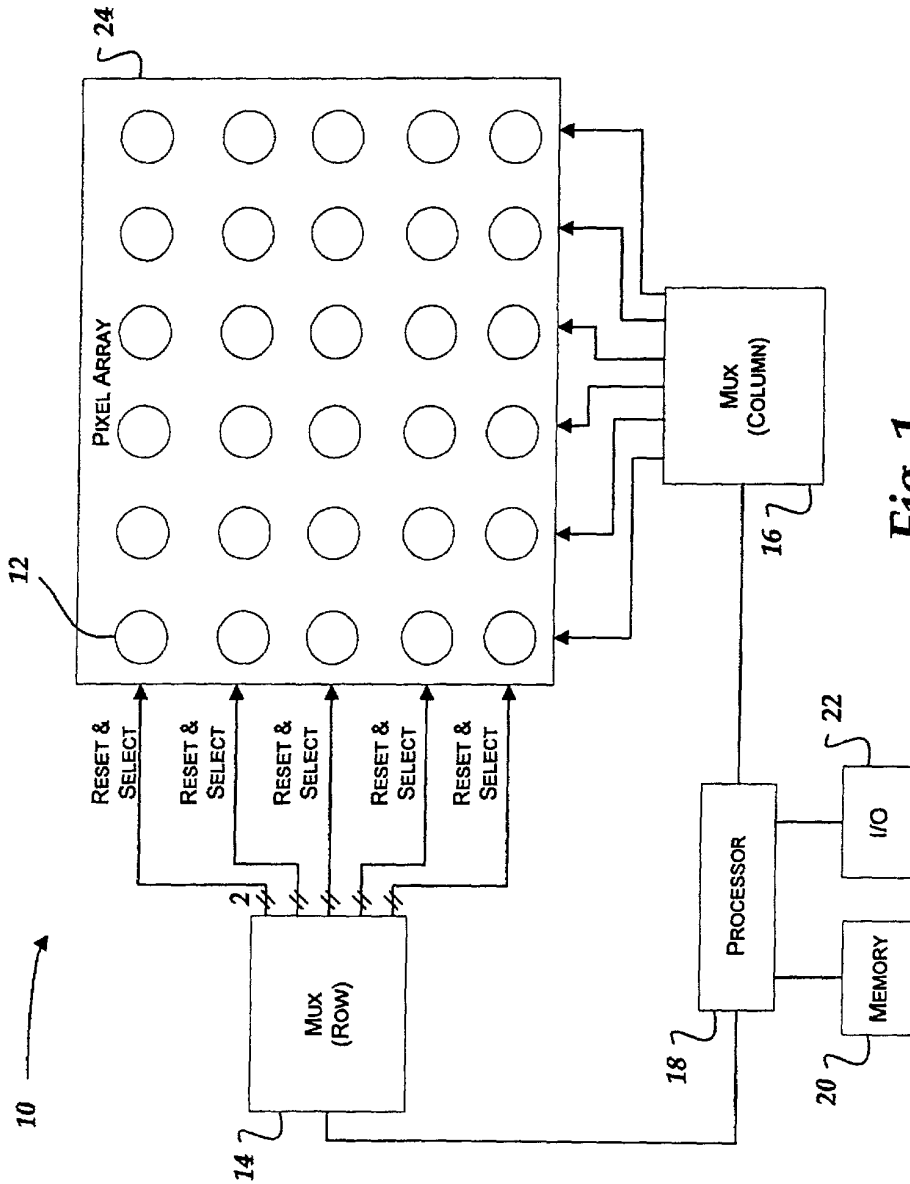Docket No: M&G 50019.76US01

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Fig. 2

PRIOR ART

Fig. 3

PRIOR ART

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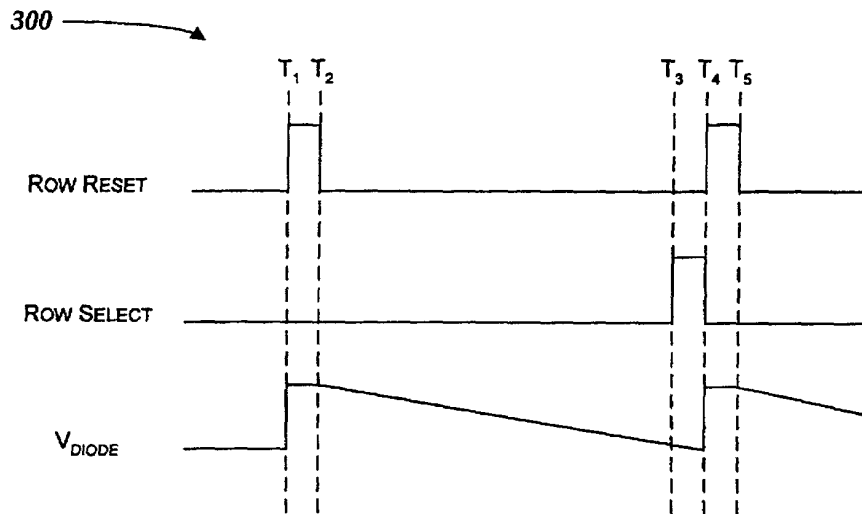Docket No: M&G 50019.76US01

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Fig. 4

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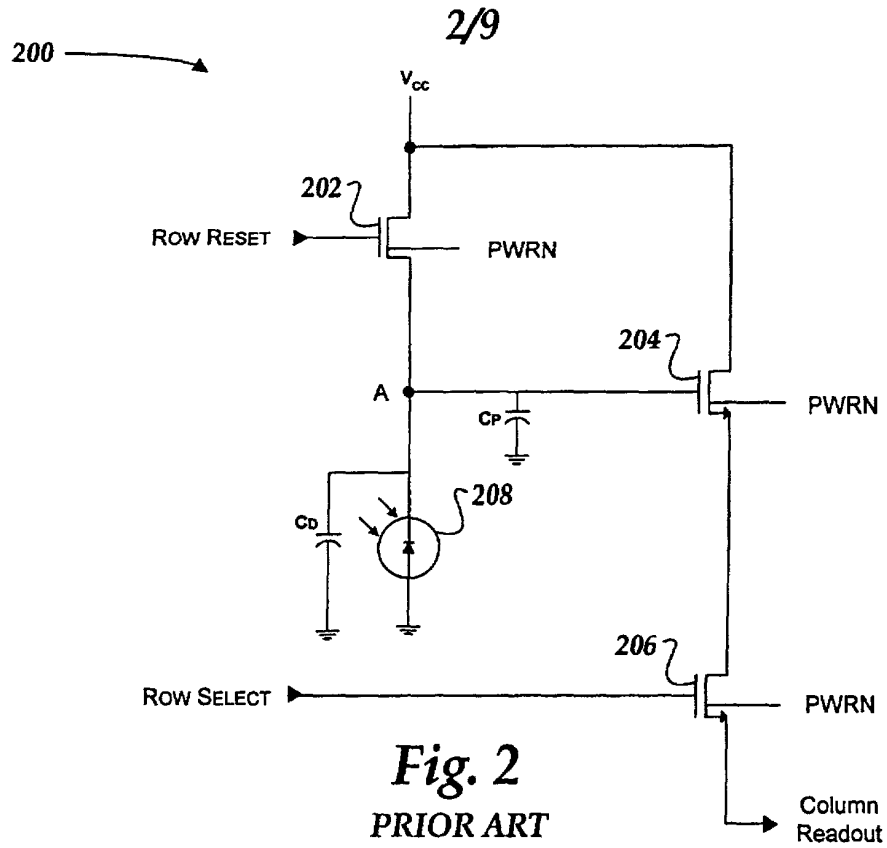Docket No: M&G 50019.76US01
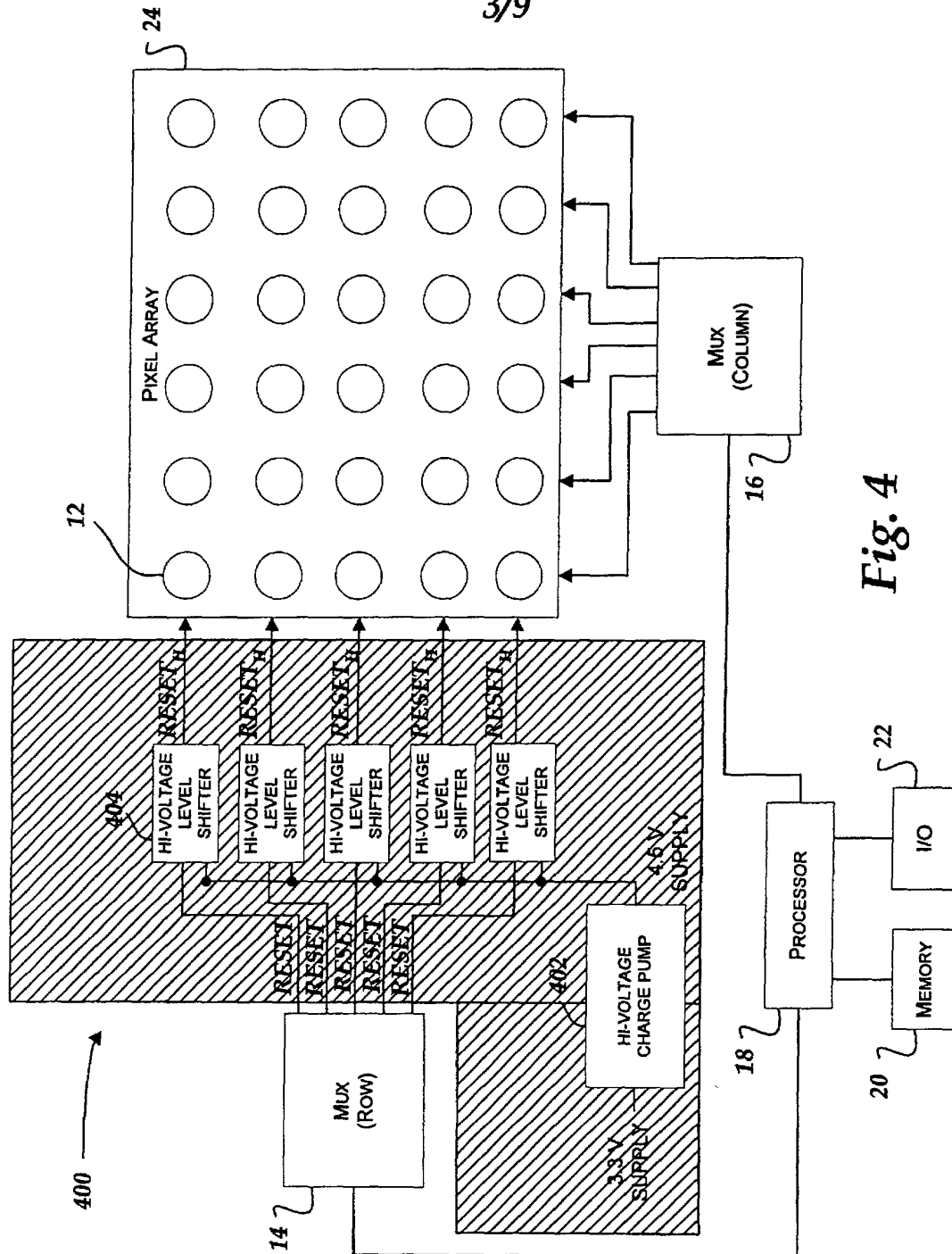
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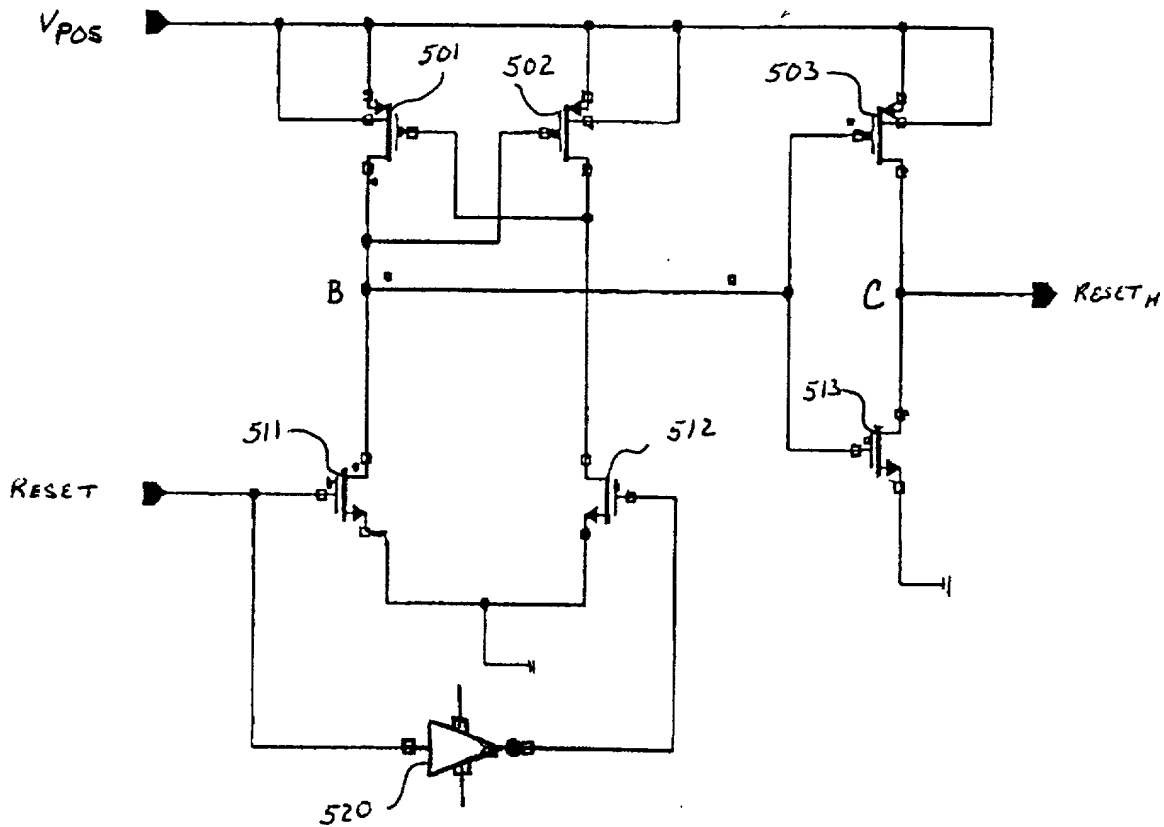*Fig. 5*

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Fig. 6

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Fig. 7

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Fig. 8

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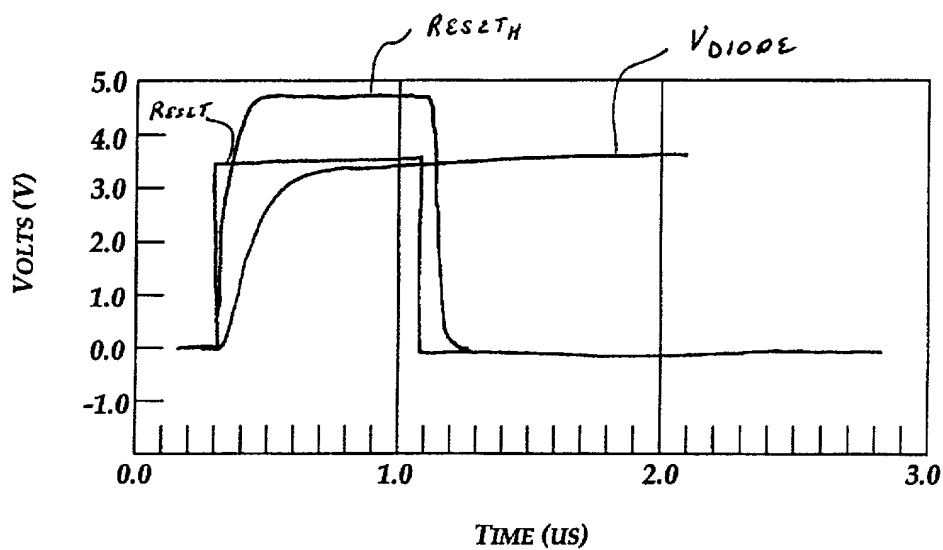Docket No: M&G 50019.76US01

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Fig. 9

Fig. 10

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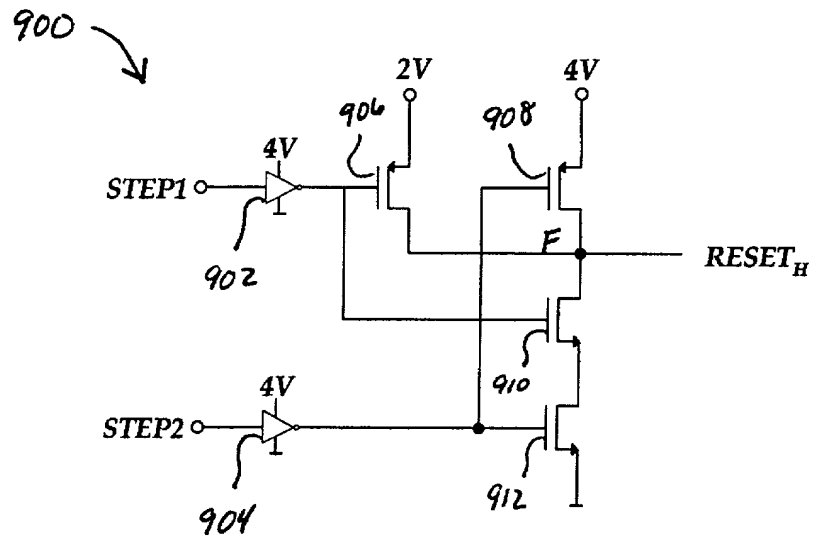Docket No: M&G 50019.76US01
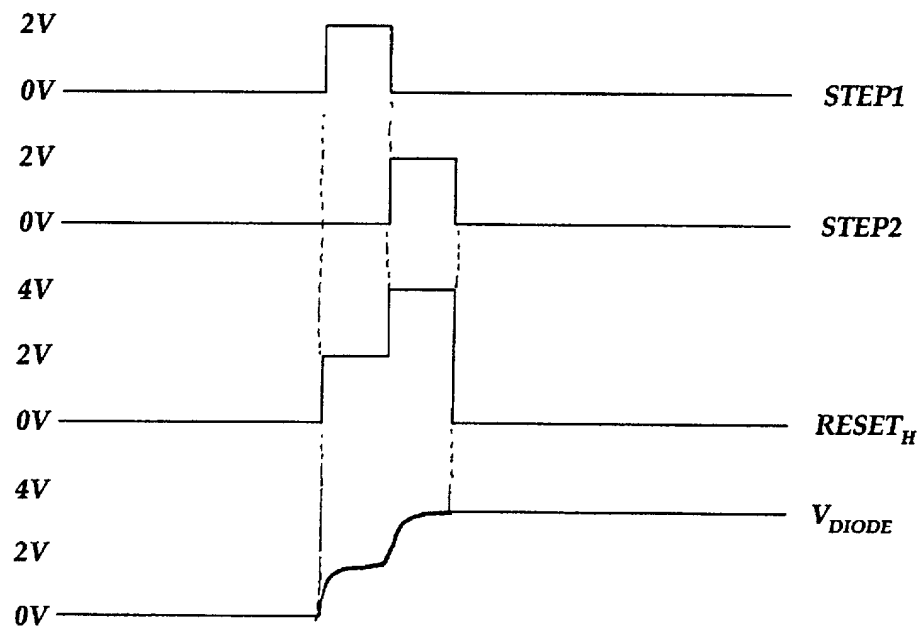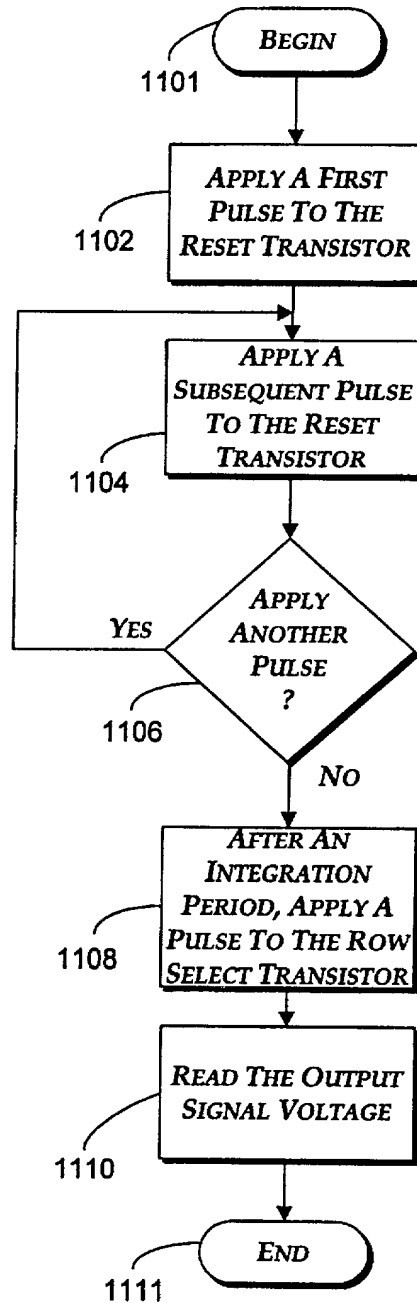
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1100

HIGH VOLTAGE RESET
PROCESS

BEGIN
1101

APPLY A FIRST
PULSE TO THE
RESET TRANSISTOR
1102

APPLY A
SUBSEQUENT PULSE
TO THE RESET
TRANSISTOR
1104

APPLY
ANOTHER
PULSE
?
1106

YES

NO

AFTER AN
INTEGRATION
PERIOD, APPLY A
PULSE TO THE ROW
SELECT TRANSISTOR
1108

READ THE OUTPUT
SIGNAL VOLTAGE
1110

END
1111

Fig. 11